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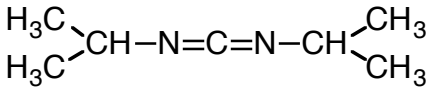
Toxicology and Carcinogenicity Studies of Diisopropylcarbodiimide in Genetically Modified Mouse Models



Diisopropylcarbodiimide

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Rationale for Studies in Genetically Modified Mouse Models

- These are some of the earliest studies done as a part of the database the NTP is establishing to help develop more rapid and economical assays to reduce dependency on the 2-year bioassay
- The p53 haploinsufficient and Tg.AC hemizygous are most studied models and reported to identify most known human carcinogens
- Therefore, these two models were used in the current studies

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Results of 21-Week Study in Tg.AC Mouse

- Group of 10 female mice received dermal application of 0, 4.38, 8.75, 17.5, 35 or 70 mg of DIC in ethanol, 5 days a week for 21 weeks.
- No treatment related mortality or clinical signs of toxicity
- No changes in body or organ weights
- No neoplastic or non-neoplastic lesions attributed to DIC treatment

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Results of 27-Week Study in p53 Mouse

- Group of 15 female mice received dermal application of 0, 4.38, 8.75, 17.5, 35 or 70 mg of DIC in ethanol, 5 days a week for 27 weeks.
- No treatment related mortality or clinical signs of toxicity
- No changes in body or organ weights
- Minimal epidermal hyperplasia at the site of application in high dose
- No neoplastic lesions attributed to DIC treatment

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Conclusions

- ***No evidence of carcinogenic activity*** **of diisopropylcarbodiimide in female p53 haploinsufficient mice.**

- **No treatment- related neoplasms or nonneoplastic lesions in female Tg.AC hemizygous mice administered diisopropylcarbodiimide.**

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NTP Technical Reports Review Subcommittee Meeting

Diisopropylcarbodiimide

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